



The Generic Disposition of *Quidproquo confusum* and *Sinapis aucheri* (Brassicaceae)

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ABSTRACT. The generic name *Quidproquo* is reduced to synonymy of *Raphanus*. The new combination *R. confusus* is proposed. Evidence for the retention of *Brassica aucheri* in *Brassica*, rather than in *Sinapis*, is presented.

The identity of two Middle Eastern species of mustards has been confused, resulting in a nomenclatural instability that has continued from the mid 1800s to the present. The confusion is attributed to the fact that the two species were historically treated as one, their typification was mishandled, and their generic disposition was not resolved.

Boissier (1842) described *Brassica aucheri* Boissier from a single collection (*Aucher 203*) from northern Iraq. Boissier (1849) transferred the species to *Raphanus* (as *R. aucheri* (Boissier) Boissier) and cited two collections, one from Galilee (northern Israel) and another from Persia (Iran). However, he overlooked the fact that the specimens from Israel, and those he (Boissier, 1867) later cited from southern Lebanon, represent a species entirely different from that of Iraq and Iran. Schulz (1919) was the first to recognize that there were two species involved. However, he retained the name *R. aucheri* for the eastern Mediterranean (Israel, Lebanon, Syria) species, excluded the type (*Aucher 203*) of that name by stating (p. 209) "excl. pl. Auch. et Kotsch.," and recognized the plant of Iraq and Iran as *Sinapis aucheri* (Boissier) O. E. Schulz. As indicated by Baillargeon (1985, 1986), Schulz

contradicted Article 48.1 of the International Code of Botanical Nomenclature and thus created a later homonym, *R. aucheri* O. E. Schulz not Boissier, for the eastern Mediterranean species.

The eastern Mediterranean plant needed a new name, and Greuter and Burdet (1983) named it *Quidproquo confusum*, whereas Al-Shehbaz (1985) named it *Raphanus boissieri*. Greuter and Burdet were correct in providing a legitimate name for the species, but they failed to typify it, and they placed it in the monotypic genus *Quidproquo* without discussing anything about the affinities and the reasons for separating this new genus from the related *Brassica*, *Raphanus*, and *Sinapis*. On the other hand, Al-Shehbaz placed the species in the correct genus, *Raphanus*, but overlooked the fact that Greuter and Burdet provided a substitute name for *R. aucheri* O. E. Schulz. Therefore, the name *Raphanus boissieri* Al-Shehbaz is illegitimate, and the correct name for the eastern Mediterranean plant should be *R. confusus*, the combination of which is herein proposed.

Raphanus confusus (Greuter & Burdet) Al-Shehbaz & Warwick, comb. nov. Basionym: *Quidproquo confusum* Greuter & Burdet, *Willdenowia* 13: 94. 1983. *Raphanus aucheri* O. E. Schulz, *Pflanzenr.* IV. 105(Heft 70): 209. 1919, not *R. aucheri* (Boissier) Boissier, *Diagn. Pl. Orient. Nov.* I. 2(8): 45. 1849. TYPE: Israel [as Palestine]. *Galilaea borealis*, near Hunin and not far from Safed, 900 m, 22 Apr. 1897, *Bornmüller 114* (lectotype, designated by Baillargeon (1985), W).

Raphanus boissieri Al-Shehbaz, J. Arnold Arbor. 66: 275. 1985. TYPE: Palestine [Israel]. Galilee, April–May 1846, E. Boissier s.n. (holotype, GH; isotype, G-Bois).

Although Baillargeon (1985, 1986) provided a detailed nomenclatural history of this complex, he refrained from evaluating the generic disposition of the two species involved. He distinguished *Quidproquo* from *Raphanus* on the basis of the complete absence of the valvular fruit segment, which is present in *Raphanus* as a rudimentary and seedless structure. However, we consider this difference as minor, not justifying the recognition of *Quidproquo* as distinct from *Raphanus*. It is interesting to note that the lectotype sheet of *Q. confusum* was initially annotated by Baillargeon as *R. schulzii* Baillargeon, a name that was never published.

The Iraqi–Iranian species was treated by Hedge (1968) and Hedge and Lamond (1980) as *Sinapis aucheri*, just as was done by Schulz (1919). Molecular studies on this species (Warwick & Black, 1991) show that it is most closely related to *Brassica deflexa* Boissier, a Middle Eastern species with the same chromosome number of $2n = 14$. Warwick and Black's study also shows that both species fall in a clade ("*Brassica*" lineage) quite distinct from the clade that includes the remaining species of *Sinapis*. Their data are consistent with the recognition of the species as a morphologically anomalous element in *Sinapis*. The presence of a long, corky, torulose, 6–10-seeded terminal fruit segment is anomalous in *Sinapis* but not so in *Brassica*.

Therefore, Boissier's (1842) original description of the Iraqi–Iranian species as *Brassica aucheri* reflects the most accurate generic disposition.

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